

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A process for producing 6 to 25 dpf carpet staple fiber comprising the steps of: melt spinning poly (trimethylene terephthalate) into fibers on equipment having a quench zone shorter than 16 feet; accumulating the fibers under conditions to produce an aged undrawn yarn; prewetting the aged undrawn yarn, said aged undrawn yarn consisting essentially of poly(trimethylene terephthalate), at a temperature less than about 45°C; drawing the yarn under wet conditions at a temperature of from about 45°C to about 95°C in a first stage to a length of about 30 to about 90 percent of its final length; further drawing the yarn in a second stage at a temperature from about 45°C to about 98°C under wet conditions; crimping the drawn yarn; thermo-fixing the crimped yarn in the presence of steam at a temperature from about 80°C to about 100°C; and drying the crimped yarn at 60°C to 140°C.

Claim 2 (currently amended): The process of claim 1, wherein said undrawn yarn is spun on equipment having a spinneret capillary density of at least 2/cm² ~~and a quench zone shorter than about 16 feet.~~

Claim 3 (original): The process of claim 1, wherein the undrawn yarn is spun at a speed less than about 600 ypm.

Claim 4 (original): The process of claim 1, wherein said prewetting and drawing are carried out under water or under an aqueous solution of processing finish.

Claim 5 (original): The process of claim 1, wherein during said prewetting and drawing, said yarn is in the form of a spun rope of less than about 300,000 denier/inch.

Claim 6 (previously presented): The process of claim 1, wherein in said first draw stage, the yarn is drawn to a length from about 40 to about 70 percent of its final length.

Claim 7 (previously presented): The process of claim 1, wherein in said first draw stage, the yarn is drawn to a length from about 50 to about 55 percent of its final length.

Claim 8 (original): The process of claim 1, wherein said first draw stage is carried out at a temperature of about 80°C or less.

Claim 9 (original): The process of claim 1, wherein said first draw stage is carried out at a temperature of about 70°C or less.

Claim 10 (original): The process of claim 1, wherein said first draw stage is carried out at a temperature of about 60°C or less.

Claim 11 (original): The process of claim 1, wherein said first draw stage is carried out at a temperature of about 50°C to about 55°C.

Claim 12 (original): The process of claim 1, wherein said second draw stage is carried out at a temperature of about 60°C to about 80°C.

Claim 13 (original): The process of claim 1 wherein said thermo-fixing is carried out at a temperature of about 85°C.

Claim 14 (original): The process of claim 1 wherein said drawn yarn has a denier of 6 to 20 dpf.

Claim 15 (previously presented): The process of claim 1 wherein the crimped yarn is dried at a temperature from about 60°C to about 100°C.

Claim 16 (currently amended): A process for producing 1 to 6 dpf textile staple

fiber comprising the steps of: melt spinning poly (trimethylene terephthalate) into fibers on equipment having a quench zone shorter than 16 feet; accumulating the fibers under conditions to produce an aged undrawn yarn; prewetting the aged undrawn yarn, said aged undrawn yarn consisting essentially of poly(trimethylene terephthalate), at a temperature less than about 45°C; drawing the yarn under wet conditions at a temperature of from about 45°C to about 95°C in a first stage to a length of about 30 to about 90 percent of its final length; further drawing the yarn in a second stage at a temperature from about 45°C to about 98°C under wet conditions; crimping the drawn yarn; thermo-fixing the crimped yarn in the presence of steam at a temperature from about 80°C to about 100°C; and drying the crimped yarn at 60°C to 140°C.

Claim 17 (currently amended): The process of claim 16, wherein said undrawn yarn is spun on equipment having a spinneret capillary density of at least about 8/cm² ~~and a quench zone shorter than about 16 feet.~~

Claim 18 (original): The process of claim 16 wherein said undrawn yarn is spun at a speed of 1300 ypm or less.

Claim 19 (original): The process of claim 16 wherein said undrawn yarn is spun at a speed of 900 ypm or less.

Claim 20 (original): The process of claim 16 wherein said prewetting and drawing are carried out under water or under an aqueous solution of processing finish.

Claim 21 (original): The process of claim 16, wherein during said prewetting and drawing, said yarn is in the form of a spun rope of less than about 200,000 denier/inch.

Claim 22 (previously presented): The process of claim 16, wherein in said first draw stage, the yarn is drawn to a length from about 40 to about 90 percent of its final length.

Claim 23 (previously presented): The process of claim 16, wherein in said first draw stage, the yarn is drawn to a length from about 70 to about 90 percent of its final length.

Claim 24 (original): The process of claim 16, wherein said first draw stage is carried out at a temperature of about 80°C or less.

Claim 25 (original): The process of claim 16, wherein said first draw stage is carried out at a temperature of about 70°C or less.

Claim 26 (original): The process of claim 16, wherein said first draw stage is carried out at a temperature of about 60°C or less.

Claim 27 (original): The process of claim 16, wherein said first draw stage is carried out at a temperature of about 50°C to about 55°C.

Claim 28 (original): The process of claim 16, wherein said second draw stage is carried out at a temperature of about 60°C to about 80°C.

Claim 29 (original): The process of claim 16, wherein said thermo-fixing is carried out at a temperature of about 85°C.

Claim 30 (previously presented): The process of claim 16, wherein said crimped yarn is dried at a temperature from about 60°C to about 100°C.

Claims 31-45 (cancelled)

Claim 46 (new): A process for producing 6 to 25 dpf carpet staple fiber comprising the steps of: melt spinning poly (trimethylene terephthalate) into fibers; accumulating the fibers under conditions to produce an aged undrawn yarn; prewetting the aged undrawn yarn, said aged undrawn yarn consisting essentially of poly(trimethylene terephthalate), at a temperature less than about 45°C; drawing the yarn under wet conditions at a temperature of less than 60°C

in a first stage to a length of about 30 to about 90 percent of its final length; further drawing the yarn in a second stage at a temperature from about 45°C to about 98°C under wet conditions; crimping the drawn yarn; thermo-fixing the crimped yarn in the presence of steam at a temperature from about 80°C to about 100°C; and drying the crimped yarn at 60°C to 140°C.

Claim 47 (new): The process of claim 46, wherein said first draw stage is carried out at a temperature of about 50°C to about 55°C.

Claim 48 (new): The process of claim 47, wherein said second draw stage is carried out at a temperature of about 60°C to about 80°C

Claim 49 (new): The process of claim 48, wherein said thermo-fixing is carried out at a temperature of about 85°C.

Claim 50 (new): A process for producing 1 to 6 dpf textile staple fiber comprising the steps of: melt spinning poly (trimethylene terephthalate) into fibers; accumulating the fibers under conditions to produce an aged undrawn yarn; prewetting the aged undrawn yarn, said aged undrawn yarn consisting essentially of poly(trimethylene terephthalate), at a temperature less than about 45°C; drawing the yarn under wet conditions at a temperature of less than 60°C in a first stage to a length of about 30 to about 90 percent of its final length; further drawing the yarn in a second stage at a temperature from about 45°C to about 98°C under wet conditions; crimping the drawn yarn; thermo-fixing the crimped yarn in the presence of steam at a temperature from about 80°C to about 100°C; and drying the crimped yarn at 60°C to 140°C.

Claim 51 (new): The process of claim 50, wherein said first draw stage is carried out at a temperature of about 50°C to about 55°C.

Claim 52 (new): The process of claim 51, wherein said second draw stage is carried out at a temperature of about 60°C to about 80°C

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Claim 53 (new): The process of claim 52, wherein said thermo-fixing is carried out at a temperature of about 85°C.